

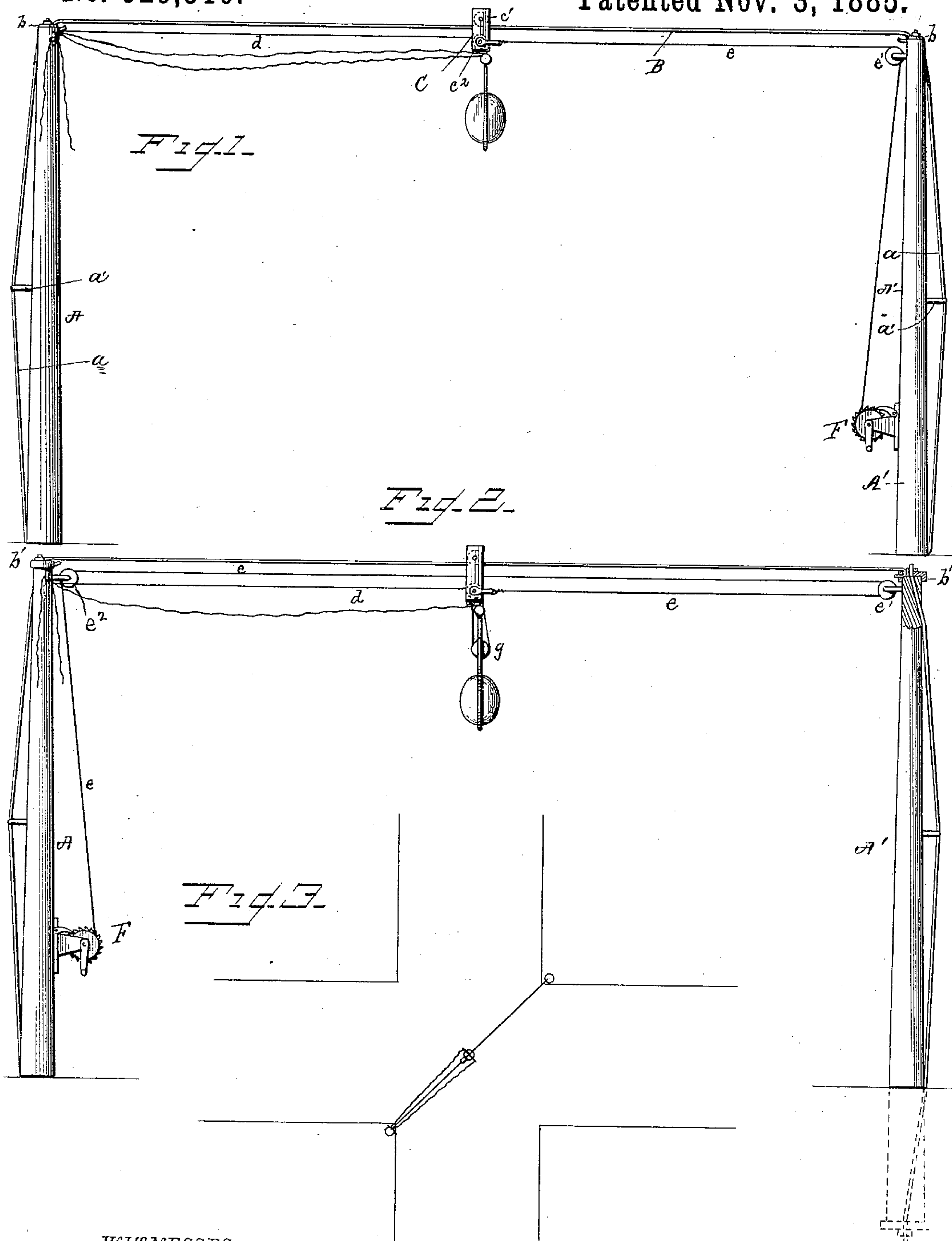
(No Model.)

C. L. TRAVIS.

SUPPORT FOR ELECTRIC LIGHTS.

No. 329,510.

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WITNESSES
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TO THE MINNESOTA BRUSH ELECTRIC COMPANY, OF SAME PLACE.

SUPPORT FOR ELECTRIC LIGHTS.

SPECIFICATION forming part of Letters Patent No. 329,510, dated November 3, 1885.

Application filed June 1, 1885. Serial No. 167,272. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. TRAVIS, of Minneapolis, county of Hennepin, and State of Minnesota, have invented a new and useful
5 Improvement in Supports for Electric Lights, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

10 My invention relates to the supports for, and the means of effecting the adjustment of, electric lights for street-lighting, and also to the employment of two or more posts or up-
15 rights, connected by a rod or wire, serving as a track or rail for the pulley-block by means of which the lamp is raised and lowered or adjusted to the desired position for use or for
20 trimming, and to the arrangement of means for effecting the adjustment of the lamp for use and for trimming, and in a novel construc-
25 tion of the posts connected by the rail or track for the hoisting-pulley block, for adapting them, without unnecessary weight of mate-
30 rial, to resist the strain or tension of the connecting rod or support for the lamp, as will be described.

In the accompanying drawings, Figure 1 is a side elevation of my improved support for electric lamps, showing also the lamp and
35 means for effecting its adjustment. Fig. 2 is a similar view showing a modification in the arrangement of means for adjusting the lamp; and Fig. 3 is a diagram showing the preferred
40 diagonal arrangement of the posts or street-corners.

A and A' represent two posts or uprights, (made from any suitable material, but preferably of cast-iron,) tubular in form and taper-
45 ing toward their upper ends, as shown. These posts are arranged, preferably, on diagonally-opposite corners of intersecting streets, as indicated in the diagram Fig. 3, for adapting the lamp to be adjusted for use to the centers of both streets, and thereby to throw the light
50 in opposite directions upon each, and, further, for giving greater range of adjustment of the lamp, as will be explained.

a represents a truss rod or brace extending from end to end on the outer side, relatively,
55 of each post, and supported or held away from

the post at or near the center of its length by a strut or stretching-piece, a' , suitably secured to the posts. Where the posts are made of wood, I prefer to secure these truss-rods to the ends thereof by means of cap-plate b or thim-
55 ble b' , as indicated in Fig. 2, which serves to prevent splitting and otherwise to protect said ends, the ends of the rod passing through in-
60 clined longitudinal grooves in the outer faces of the ends of the poles and centrally through the caps on said ends, where they are secured by nuts or otherwise in such manner as to fa-
65 cilitate the adjustment of the tension of the rod. The rod may be provided with a head at one end and a nut at the other, if desired, or the strut a' may be made adjustable in
70 length, or in the post, for giving the desired tension to the rod. By this construction a light pole or post may be used of the desired length, and the requisite stiffness secured
75 with much less weight of material than would otherwise be practicable. Two poles or posts thus constructed and firmly embedded in the ground are connected at their upper
80 ends by a horizontal rod or stout wire, B, stretched or drawn taut between them, as shown, and connected at its ends either di-
85 rectly to the upper ends of the posts, in any suitable manner, or to eyes in the cap-plates thereof, and upon this rod or wire is mounted
90 a pulley-block, C, consisting of two vertical side or cheek plates, in the upper ends of which a grooved pulley, c' , is journaled, said pulley resting and rolling on the rod B, which
95 forms a track therefor. The cheek-plates have a second sheave or pulley, c'' , journaled in their lower ends, over which a cord, d , passes for effecting the vertical adjustment of the
100 lamp D, as will be explained. A second cord for effecting the horizontal adjustment of the lamp is indicated at e , said cord being represented in Fig. 1, as attached at one end to the pulley-block C, and extending thence over e' , attached to the pole A' near its upper end, and thence down on the inner side of said pole
to an adjusting-drum, F, secured to said pole at a suitable distance above the ground to pre-
vent accidental interference or tampering with it. The drum is provided with a crank for op-
erating it, and with a ratchet-disk and pawl

for holding it and the lamp at the desired adjustment. The cord *e*, instead of passing over and down from pulley *e'*, may pass under and up outside of and over said pulley, and thence
 5 back over a pulley, *e''*, and down to drum F, secured to the post A, as shown in Fig. 2, thereby adapting both operations of adjusting the lamp and trimming the same to be performed at the same side of the street. Where
 10 the posts are of sufficient height for the purpose, the cord *d*, through which its vertical adjustment is effected, may be attached at one end to the post A, at or near its upper end, as shown, and passing thence over pulley *c''* of
 15 the pulley-block, may have the lamp D attached directly to and pendent from its opposite end, as shown in Fig. 1. By this arrangement, as the pulley-block is moved toward post A, the lamp will move downward a corresponding distance; but where the width of
 20 the street is too great, or the posts too short to permit this, the end of the cord *d* may be passed down under a pulley, *g*, journaled in the upper end of the lamp-frame, and thence upward and be secured to the pulley-block C, as
 25 shown in Fig. 2. By this last-described arrangement, the lamp will be made to move laterally toward or from the post A, say, twenty feet, while it moves downward or upward ten
 30 feet, or one-half the distance of its lateral movement. This enables me to carry the lamp to the centers of wide streets and diagonally at the intersections thereof, without the aid of very high poles, and, at the same time, avoids
 35 the necessity of letting the lamp down so low in getting it into position by the side of the post for trimming as to endanger accidental interference with it and the conducting-wires. The adjusting-drum should be arranged at
 40 such a height above the ground as to require a light step-ladder in reaching and adjusting it, and the lamp should be arranged to be lowered to the side of the post at a corresponding height, for the reasons stated. In the
 45 event of breakage of the wire or track B, upon which the lamp-sheave travels, and from which the lamp is supported, the holding-rope *d* and adjusting-rope *e* will serve to uphold the lamp and prevent it from falling to the pavement below and being shattered. Flexible
 50 conductors *h h'* connect with the lamp D in and usual or preferred manner and serve to permit its adjustment, as explained.

The adjusting drum or windlass may be in-

closed in a suitable box or case, which may be 55 closed and locked by the attendant in order to prevent unauthorized persons from tampering with the same, or the drum itself may be locked in any suitable manner to prevent its being rotated. 60

Having now described my invention, I claim as new—

1. In a support for electric lamps, the trussed posts A and A', trussed on the sides opposite to and in combination with the connecting rod 65 or rail forming the track for the pulley-block, substantially as and for the purpose described.

2. The combination, with the supporting-posts and the rod connecting said posts, of the pulley-block adapted to move on said rod, and 70 the cords *d* and *e* for effecting the adjustment of the pulley-block and lamp, substantially as described.

3. The combination, with the supporting-posts A and A', of the connecting rod or rail 75 B, the pulley-block C, moving on said rod, means, substantially as described, for adjusting said pulley-block, and the lamp suspended from said block by means of a cord attached at one end to one of the supporting-posts and 80 at the other to the traveling pulley-block, substantially as described.

4. In a device for supporting electric lamps over streets, the combination, with the trussed posts and the fixed supporting wire or track 85 connecting said posts, of the adjusting-cords and the traveling sheaves or pulleys adapted to be moved horizontally by the weight of the lamp.

5. The combination, with the supporting 90 wire or track, of the traveling sheave or pulley and the suspending-cord adapted to impart both a lateral and a vertical movement to the lamp when actuated by the weight of the lamp, substantially as described. 95

6. The combination, with the traveling sheave or pulley, of the supporting wire or track and the holding and releasing ropes adapted to act as safety-supports for the lamp in case of breakage of the said supporting wire 100 or track.

In testimony whereof I have hereunto set my hand this 28th day of May, A. D. 1885.

CHARLES L. TRAVIS.

Witnesses:

S. S. LEONARD,
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